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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/519,584

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12/21/2007

EXAMINER

NGUYEN, HUY TRAM

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

12/21/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/519,584

Applicant(s)

FUJII ET AL.

Examiner

Huy-Tram Nguyen

Art Unit

1797

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

Applicant's arguments filed on November 26, 2007 have been fully considered but they are not persuasive. The Applicant amended the claim to change the catalyst layer range from 10:90-90:10 to 10:90 to 40:60 and 20:80 to 40:60. Examiner uses a secondary reference from **Jacob et al. (DE 42 03 807 A1)** to address this limitation as described in the rejection below.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by **Jacob et al. (DE 42 03 807 A1)**.

Regarding Claim 1, Jacob et al. reference discloses an exhaust gas purifying catalyst-supported member comprising a metal carrier and a catalyst layer directly formed on a surface of the metal carrier, said catalyst layer comprising an exhaust gas purifying catalyst and silicon oxide wherein the weight ratio between the exhaust gas purifying catalyst and silicon oxide in the catalyst layer is in the range of 10:90 to 40:60 (**Abstract - a hydrolysis catalyst comprising a support structure coated with a 90-10:10-90 weight ratio mixture of Al₂O₃ and TiO₂, SiO₂, ZrO₂ and/or H-zeolite**).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Sung et al. (US Patent No. 6,087,298) in view of Jacob et al. (DE 42 03 807 A1)**

Regarding Claim 1, Sung et al. reference discloses an exhaust gas purifying catalyst-supported member (**See Abstract – gas treatment catalytic article and Figure 1, numeral 10**) comprising a metal carrier (**See Column 25, Line 18-22 and Figure 1, numerals 18 and 20**) and a catalyst layer directly formed on a surface of the metal carrier (**See Column 24, Line 65-67**), said catalyst layer comprising an exhaust gas purifying catalyst and silicon oxide (**See Column 20, Line 21-36 – mixed oxide forms of silica-alumina – alumina oxide as an exhaust gas purifying catalyst and silicon oxide**). However, Sung et al. reference does not disclose the claimed weight ratio between exhaust gas purifying catalyst and silicon oxide in the range of 10:90 to 40:60. Jacob et al. reference discloses this weight ratio (**Abstract – a hydrolysis catalyst comprising a support structure coated with a 90-10:10-90 weight ratio mixture of Al_2O_3 and TiO_2 , SiO_2 , ZrO_2 and/or H-zeolite**). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the weight ratio as taught by Jacob et al., since Jacob et al. reference states at **Abstract** that such a modification would ensure to avoid urea deposition of the catalyst inlet, fouling of the SCR catalyst and emission of urea and urea-generated particles.

Regarding Claim 2, Sung et al. and Jacob et al. references disclose the exhaust gas purifying catalyst-supported member as claimed in claim 1, wherein the weight ratio between the exhaust gas purifying catalyst and silicon oxide in the catalyst layer is in the range of 20:80 to 40:60 (**Abstract – a hydrolysis catalyst comprising a support**

structure coated with a 90-10:10-90 weight ratio mixture of Al_2O_3 and TiO_2 , SiO_2 , ZrO_2 and/or H-zeolite).

Regarding Claim 3, Sung et al. and Jacob et al. references disclose the exhaust gas purifying catalyst-supported member as claimed in claim 1, wherein the exhaust gas purifying catalyst in the catalyst layer comprises at least one noble metal selected from the group consisting of platinum, palladium and rhodium (**Sung et al. - Column 20, Line 50-61 and Column 7, Line 5-7**) and activated alumina (**Sung et al. - Column 20, Line 30-35**).

Regarding Claim 4, Sung et al. and Jacob et al. references disclose the exhaust gas purifying catalyst-supported member as claimed in claim 1, wherein the metal carrier is a metal plate selected from the group consisting of a stainless steel plate, a stainless steel tube and a stainless steel corrugated plate (**Sung et al. - Column 25, Line 20-22, Line 63-64**).

Regarding Claim 5, Sung et al. and Jacob et al. references disclose the exhaust gas purifying catalyst-supported member as claimed in claim 3, wherein the weight ratio between the noble metal and the activated alumina in the exhaust gas purifying catalyst layer is in the range of 1:1 to 1:35 (**Sung et al. - Column 19, Line 63-Column 20, Line 7 –40 percent (1:1.5 ratio) of noble metal (palladium)**).

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Sung et al. (US Patent No. 6,087,298)** in view of **Jacob et al. (DE 42 03 807 A1)** and **Homeier et al. (US Patent No. 4,759,918)**.

Regarding Claim 6, Sung et al. and Jacob et al. references disclose the claimed invention except for the exhaust gas purifying catalyst-supported member being a mesh filter brought into contact with an exhaust gas from a diesel engine. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the catalyst supported member as metal mesh filters for solving the diesel emission problem (**Homeier et al. – Column 1, Line 27-31**).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huy-Tram Nguyen whose telephone number is 571-270-3167. The examiner can normally be reached on M - F: 7:30 AM - 5:00 PM (Alternated Friday off).


Application/Control Number:
10/519,584
Art Unit: 1797

Page 7

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Griffin can be reached on 571-272-1447. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HTN
7/23/07



Glenn Caldarola
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